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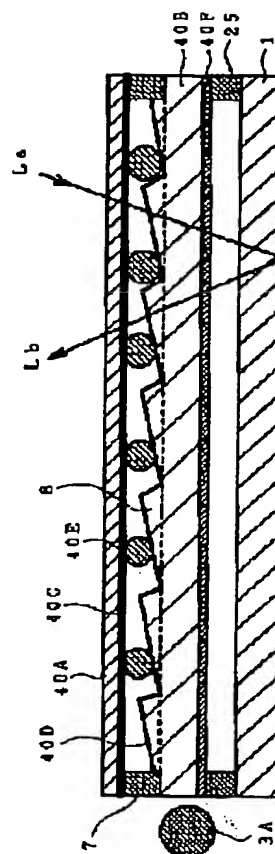
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TITLE : LIQUID CRYSTAL DISPLAY DEVICE



ABSTRACT : PROBLEM TO BE SOLVED: To suppress reflected light on the surface of an illuminator by providing an antireflection film on the surface opposed to a liquid crystal display panel of a lower substrate.

SOLUTION: This antireflection film 40F is provided on a surface opposed to a liquid crystal display panel 1 of a transparent hard substrate 40B. Thereby, reflection of light generated between an air layer, between a front light and touch panel and the liquid crystal display panel 1 and the transparent hard substrate 40B is prevented. The material of the antireflection 40F preferably has a refractive index value intermediate between refractive indices of the transparent hard substrate 40B and the air. As actual examples of the material of the antireflection film 40F, magnesium fluoride  $MgF_2$  having a refractive index of 1.38 (550 nm wavelength), cryolite  $Na_3AlF_6$  and the like having a refractive index of 1.33 and the like are used. The antireflection film 40F has to be formed at a temperature at which acrylic resin will not deform. There are a deposition method, a low temperature sputtering method and an ion-plating method for forming the antireflection film and the ion-plating method which are available with superior in cost performance.

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